

Fourth of Six Articles . . .

Motivation In Human Relations

Part 4 — Perception

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In the previous articles of this series, motivation was discussed in relation to several different internal and external forms of stimulation which give rise to activity. Motivation to act could be stimulated by both physiological and social needs. The effects of reward, punishment and frustration were described in some detail. We shall now consider the factor of perception in the control of human motivation starting with an example.

Perception Illustrated

With the rapid growth of new war industries in the early forties, many areas which had always enjoyed an employer's market suddenly experienced a marked labor shortage. Such was the case at the local pajama factory. The new, more glamorous appearing job opportunities led many of the operators away from the pajama plant, never to return.

Along with the shortage of labor there was an increased demand for pajamas.

This situation prompted the personnel manager to suggest to the factory superintendent that they alter their employment policy and start to hire "old girls." The superintendent and the foreman discussed the matter, and they both agreed that experience had taught them that old girls—over thirty years—were too slow and that it simply did not pay to hire them and operate at a loss.

After some months, the labor shortage became critical. The personnel manager then proposed that they hire a group of old girls on a purely experimental basis. They were to try the operators for six months keeping accurate production records to see if it was at all possible to break even financially. Both the superintendent and the foreman told the personnel manager that the experiment wasn't necessary since they could assure him, as the result of their many years of experience, that old girls were too slow and couldn't produce enough to pay their wages. However, if he couldn't learn any other way, they would go along with the experiment.

At the termination of the six-month period the records were tallied. The overall production of the old girls proved to be greater than that of a control group of young girls! To be sure, the hourly rate for the old girls was lower, but their steadiness and reliability created greater total production.

This anecdote epitomizes our perceptual blindness. Naturally, each of us is usually unaware of our own special areas of myopia. Moreover, our more important misperceptions are often firmly fixed by strong emotional involvement. Certainly, both the superintendent and the foreman felt that their reputations as managers were being questioned. They had been promoted to their positions because of their ability and experience. How could their knowledge gained from personal experience possibly be wrong? The answer is, in part, that their concepts had seldom or perhaps never been subjected to a controlled test. When this is done, we all discover that we have been shaping our lives and decisions by many myths.

Principles of Perception

This anecdote also illustrates several important principles of perception enunciated by the Gestalt psychologists.

1. Our decisions are based on our perception of reality.
2. Our perception of reality can never be completely correct.
3. Most situations are complex and contain ambiguous factors.
4. We select what we wish to see from among these factors.
5. Our initial perception resists influences that might change it.

The principle that "we select what we wish to see" appears to be the most difficult to understand and requires further elaboration. People often take exception to this principle because they feel that they view life quite objectively. It is important to recognize that perceptual selection is not a conscious decision. We are not deliberately selecting what we wish to see.

A prejudiced person will tend to remember all of the events which agree with his preconceived ideas and tend not to recall the others. The fact that the superintendent and foreman in our illustration were blind to the true relationships of the old girls to production is an example of this principle. Recognizing this phenomenon of perception, Darwin said that he made it a point to immediately write down any evidence which he discovered in disagreement with his theories.

An axiom which is related to the principle of selective perception is that we perceive what we expect to see. As an example, a *black* Four of Hearts was included in a deck of cards which were flashed one at a time for twenty subjects to read. Nineteen of these persons misread this card as either the *red* Four of Hearts or the black Four of *Spades*.

Since we tend to see what we believe or expect, scientists have safe-guarded their research results by the use of numerous well known controls. However, in our ordinary daily observations we make no attempt to take such precautions, consequently it should not be too surprising that many of our suppositions are myths. In my experience, factory engineers tend to doubt that this could possibly apply to them. I have composed a list of ten "old wives tales"

as a True-False Questionnaire for engineers. The test includes such false items as, "Metals break because they crystallize." Invariably, about 90% of the engineers taking this test flunk.

Another perceptual problem which most people have, involves suggestibility. An experiment will serve to demonstrate how easily we tend to accept incorrect suggestions in the absence of factual data. If we have a single stationary point of light in an otherwise dark room, the light will appear to move randomly. If another tiny bulb is lit, the fixed distance between the lights acts as a reference frame and they both appear stationary. Now if only one tiny bulb is lit and we have a stooge in the room who says, "It's moving to the left." Most people will readily agree that they too see it moving to the left. This experiment demonstrates that we tend to be suggestible in the absence of a frame of reference.

Supervisors who hear only one side of a case and draw hasty conclusions are verifying their suggestibility. In one instance, a college president received one complaint about a professor from a student. The president called the professor to his office and demanded with no other introduction, "I thought you were an expert in this field, why aren't you doing a good teaching job?" Clearly, the first rule to overcome such gullibility is, always hear both sides of each issue. Often this is stated, "Get all of the facts." And, of course, withhold judgment until you have all the facts.

At M.I.T. this type of research was carried further and it was demonstrated that many people follow the group's suggestion even when it is obviously wrong. In this series of experiments all but one person in each group were stooges. Each

group was shown a card containing a single line and another card with three lines, one of which was the same length as the single line. They were then asked to point out which one of the three lines matched the single line. The stooges all agreed on a line of the wrong length. Many of the subjects tested agreed with the group decision even though it was obviously wrong.

This research showed that some people are unable to stand up for what is clearly the truth in the face of group opposition. We have all experienced our principles being gradually undermined under similar conditions. This demonstrates the need both for encouraging individuality and supporting minority viewpoints in group discussions. It also epitomizes the central defect in the "organization man."

Perception, Communication, and Misunderstandings

It is well known that when several people recount an event in which they all participated, as likely as not, there will be as many different versions of the incident as there are relators. No one is deliberately falsifying; each account reveals the teller's perceptual organization. This factor of perceptual selection by each individual gives rise to many misunderstandings. This factor is so important that as part of our insight to improve communications, motion pictures like "Eye of the Beholder" have been especially distributed to industry as a training aid portraying such misperceptions. In this picture, several persons' different distorted versions of an artist's relationship with his model are depicted and then the true story is

shown, which comes as a shocking surprise to the audience.

Each person's unique development is responsible for what he perceives in any situation. Consider the case where a foreman, an engineer, an accountant, and an industrial psychologist were asked to comment on quality control in a factory. In this facility, virtually no quality control records were kept, and the few which were tallied were jealously guarded by the production supervisors and were not made available to engineering which was in a staff relationship to production.

Gil, the production foreman, insisted that there was no quality control problem. Quality was a function of the assembly-line supervisors and since they were doing everything possible to maintain the highest standards, nothing further could be done!

Al, the engineer, asserted that no control existed over their product, and as the result, both the scrap rate and the rate of returns from the field were unconscionably high. He maintained that controls were needed at all levels including raw-material purchasing and inspection, specification and inspection of parts from vendors, assembly-line inspection, keeping of scrap records and scrap analysis. Moreover, he contended that all of these records should be available to engineering as well as production.

Bert, the accountant, affirmed that quality control was impossible without cost analysis. The cost of each part of the product and the cost of each step in the assembly procedure should be maintained on punch cards. Then the relative cost of each type of scrap would

determine where the process engineers should concentrate their efforts.

Fred, the psychologist, protested that control over their physical facilities was much greater than their control of the human factor in production. He pointed to examples from industries where both the quality and quantity of production had greatly improved by applying the proper principles of motivation. What was needed was training for all supervisors, foremen and engineers in the psychology of human relations!

The perceptual organization of each contributor is certainly evident from his statement. It is quite possible that these four men brought together in discussion without guidance could become so defensive of their individual positions that their various points of view might not be merged. To this writing, little progress towards reconciliation of these different expressions has been accomplished in this factory. The production foremen still dominate the quality control picture partly because they are line supervisors.

What personality factors unique to each of these four protagonists may account for his special perception of quality control?

Gil, the foreman, was with the company fifteen years. He was a high school graduate who came up the hard way, through production. Typically, he often said that he wished he had more education. Although he normally exhibited a great deal of self-confidence, he tended to be somewhat defensive in his relations with engineers and the other college men. He showed this by such statements as, "I listen to the engineer's theories, but then I have to be practical and do what's best for pro-

duction." The subject of quality control raised unconscious fears in Gil which involved the feeling that this was a way of checking on him personally, instead of perceiving it as an objective check on production. This anxiety was also tied to a feeling that checking on his group's production indicated a lack of confidence in him. And since he wasn't as educated as the others, a basic lack of self-confidence was tapped. Thus, Gil reacted defensively by denying that a quality control problem existed or that any improvement could be made.

Al, the engineer, was with the company five years. He, typically, focused his perception on the physical aspects of quality control. As a boy, Al had done well in mathematics in school. Whereas, many fifth graders had great difficulty with "word problems" in arithmetic partly because they failed to read for precise meaning, a result of having been trained to scan, Al had no such problem. He went on to study engineering where he was taught to look for the precise physical meanings and to ignore the human factors in all problems. Moreover, his thinking process was further rigidified by the fact that these mathematical problems had only one right answer. Naturally, his thinking habits became deeply entrenched. So, it is little wonder that his perception was constrained by blinders to peer straight down the path of physical reasoning to the "one correct solution."

Bert, the accountant, was with the company eight years. He always liked figures and was particularly happy when they balanced. Bert was a plodder who gained great satisfaction from completing things. He also had learned a great deal of respect for money. He

understood that each production item had to make a profit above all else. Bert saw that it would be pound foolish to use a catch-all approach to quality control. His perception told him, "Put your efforts into only those items of scrap which cost the most."

Fred, the psychologist, was with the company only one year. Characteristically, he focused his perception on people. Fred had studied psychology because he empathized well with people and felt he could help them. At college, he had learned how Elton Mayo had discovered the human factor in production in the famous Hawthorne experiments and how Group Dynamics research had increased production in a few controlled studies. Naturally, his perceptual organization favored the human relations approach.

This case analysis clearly illustrates several important principles. Each of us has a built-in set of attitudes or perceptual habits which act like blinders. That is why psychologists say, "Practice makes blindness." Also, we must recognize that this perceptual process is unconscious. We are not aware of our own basic motivations. Therefore, our four protagonists could not analyze themselves in the same manner that another person might. Moreover, the solution which each person brings to a problem has invested in it something of himself. This is referred to as ego-involvement. Because of this emotional tie to his solution, each person is ready to defend his ideas. Thus he has a lowered threshold for defensiveness. For these reasons, we could expect these four men to become deadlocked in any discussion of quality control unless good

leadership were provided for their discussion.

Expand Perceptions

How can we reduce this perceptual myopia? It is not easy. However, Group Dynamics research has produced some excellent approaches. A discussion leader trained in permissive, democratic leadership could certainly handle this type of situation and help our four committee members to reconcile their differences and arrive at a common approach to quality control utilizing the best which each has to offer. Supervisors can be trained in the art of permissive, democratic leadership.

It is also possible to help individuals to broaden their perceptions. The permissive, non-directive evaluation interview has proven most efficacious for this purpose. Supervisors can also be trained in this interviewing technique. We will discuss how to interview in the next article.

Clearly, industry needs managers who possess wide perspectives. Such people may be young or old. The two persons who made the greatest impact on scientific thought with the most radical theories in the past two thousand years had just passed their majorities when they published their world-shaking reports. Sir Isaac Newton and Albert Einstein were only about twenty-three years old when their publications appeared. In general, younger men tend to think more radically than their elders and so are often more capable of really new ideas as suggested by the examples of

Newton and Einstein. On the other hand, many older men have proven that new thoughts are not confined to the young. And their experience often makes it possible for them to carry out administrative functions with the wisdom which only years of experience can develop.

A good supervisor can help his men expand their perceptions and do a better job. To accomplish this he should foster and develop positive motives in himself and his employees. There are seven basic motives he will wish to stress. These are:

1. The feeling of being respected and accepted by others.
2. The feeling of self-respect, self-acceptance and adequacy.
3. The feeling of affection and friendliness for others.
4. To enjoy work for its own sake and to value effort.
5. A healthy aggressiveness and enjoyment of competition.
6. To enjoy cooperative effort.
7. To utilize the rigorous methods of free inquiry which science has provided.

The better natural leaders tend to accomplish most of these motivations intuitively. Many others can be trained to perform these same functions with finesse and so develop real leadership qualities.

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Part 5, "Interviewing Principles," will appear in the next issue of the Journal.

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